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ABSTRACT

This House committee staff report concerns the impact of educational policies and practices on at risk students and minority teachers. These two groups have been adversely affected by rapid changes in education. Demands for higher standards and expectations have not been matched with adequate resources to meet the special needs of these students and teachers. Major research in this area is reviewed. Issues that underlie this topic are the following: (1) the organization of schooling into elementary and secondary levels; (2) restructuring the high school; (3) how reform affects disadvantaged students; (4) the effective schools movement; (5) the teacher shortage; (6) teacher testing policies; and (7) reform of the teaching profession. The report, "A Nation at Risk," is discussed in the context of educational reform. Several instructional programs that are research-based and that have worked for all types of students are described. Cooperative learning, peer teaching, and writing programs have improved student achievement. Teacher development programs in which teachers are meaningfully involved are encouraged. Legislators and policymakers are called upon to address issues of educational reform. (VM)

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STAFF REPORT

ON

EDUCATIONAL POLICIES AND PRACTICES: THEIR IMPACT ON EDUCATION, ON AT-RISK STUDENTS AND ON MINORITY TEACHERS

BY THE

MAJORITY STAFF
COMMITTEE ON EDUCATION AND LABOR
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDREDTH CONGRESS

SECOND SESSION

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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APRIL 1988

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CONTENTS

		Page
I.	OVERVIEW	1
II.	THE STUDENT	3
	A. School Structure/Organization: Elementary vs. Secondary	3
	B. Restructure/Reorganize the High School	5
	C. Educational Reform	7
	D. Assessment of the Impact of Educational Reform on Disadvantaged Students	8
	E. The Effective School Movement	9
	F. Instructionally Effective Schools at the High School Level	10
	G. Research-Based Instructional Programs	11
	1. Brain Learning Research and Theory	12
	2. Cooperative Learning	13
	3. The IBM Writing To Read Program	15
	H. Conclusion	15
III.	THE TEACHER	17
	A. Teacher Shortage	17
	B. Teacher Testing Policies	19
	C. Reform of the Teaching Profession	20
	1. Controversies and Reactions by Major Educational Organizations	20
	2. Teacher Development Initiatives	21
	D. Conclusion	23

EDUCATIONAL POLICIES AND PRACTICES: THEIR IMPACT ON EDUCATION, ON AT-RISK STUDENTS AND ON MINORITY TEACHERS

I. OVERVIEW

The American educational system is the traditional institution which has been responsible for creating and maintaining a literate society. As society changes, educational policies and practices must also change. Over the past 10 to 15 years, as a result of the declining achievement levels of students, there has been pressure to improve education from many aspects of society.

The changes that the educational system has made have generally been in the form of increased standards and higher expectations for students and teachers. However, in many instances, the demand for higher standards and expectations has not been matched with adequate resources, both financial and human, to achieve them particularly for those individuals who have in the past exhibited a need for them.

Students and teachers are the two most important groups in the educational system. At-risk students and minority teachers are the two subgroups that have been the most adversely affected by rapidly changing policies and practices. As the demographics in the country are rapidly changing, as the society becomes more highly technological, as the dropout rate continues to climb, and as student achievement continues to decline, the need to address the future of at-risk students and minority teachers is being emphasized by many diverse groups of society.

This report will review the major research in this area, and give a general overview of some of the issues that are impacting these two key groups. The first part will address issues that are impacting students, and the second part will address teachers. The report will examine how elementary and secondary schools differ, and how those differences impact students' achievement and success. It will trace the impact of educational reform, before and after the release of the "Nation At Risk" report, on education and particularly its impact on at-risk students and minority teachers. Additionally, several instructional programs that are research-based and that have been proven to work for all students will be highlighted.

II. THE STUDENT

Students are the target population that reflect achievement. Their declining achievement levels over the past 15 to 20 years has caused educational policies and practices to change at a rapid rate. Teachers are the major educators that directly impact student achievement; however, there are other factors affecting student achievement, and in many instances some are contributing to the high dropout rate among high school students.

A. SCHOOL STRUCTURE/ORGANIZATION: ELEMENTARY VS. SECONDARY

Research has shown that the difference in the organization and structure of schools at the elementary and secondary levels does have an impact on students' achievement, particularly at-risk students. Educational researchers have found that as children move from preschool to elementary school and then into secondary school, the school climate gradually changes from a smaller, more personal, caring atmosphere to a larger, more impersonal atmosphere of anonymity. In a more complex, threatening atmosphere, without proper assistance and support, the disadvantaged student is at risk of becoming lost, bewildered and disinterested. When the pressures become too great, many eventually give up and drop out of school.

Research in the area of brain learning theory has found that the organization and structure of schools may have a negative effect on student achievement and success. Researchers have found that students perform better in an atmosphere that is nonthreatening.

Theodore Sizer, Professor at Brown University, former Dean of the Harvard School of Education, and strong, early advocate for school reform and restructure at the high school level, finds that high schools are too specialized and impersonal. In "Studies of Schooling--High School Reform: The Need for Engineering" (1983), he pointed out:

> High schools are complicated organisms. To be orderly, the pieces must work together smoothly. In a typical high school of 1,500 pupils, almost 10,000 individual place changes occur. In a five-hour period, students and teachers move from classroom to classroom to cafeteria and so forth. The successful orchestration of so much traffic is just the beginning of the problem (p. 680).

In one of the more extensive research studies, "A Place Called School" (1984), John Goodlad, Professor at the University of California at Los Angeles (UCLA), studied schools across the country at all three levels, elementary, junior/middle and high school. His findings point out some of the major differences between the levels which may impact student achievement. Some of his major findings include:

--In the first three elementary grades, there is more emphasis on relating learning to experiences, and there is less dependence on textbooks and quizzes.

--In secondary schools, there are built in accommodations for students of differing accomplishments. These differences are accommodated in upper, middle and lower tracks. (Sizer reiterates this point when he states that poor students are tracked to be poor and rich students are tracked to be rich (p. 681, 1983).

--At the secondary level, the dominant role of the teacher, and limited opportunity of the class as a group become virtues to be reinforced. Deviation may be tolerated but it is neither condoned nor rewarded... (p. 265-266).

In an article by William Firestone, Director of Field Studies, Research for Better Schools, Inc., and Robert Herriot, independent Research Sociologist, "Prescriptions for Effective Elementary Schools Don't Fit Secondary Schools" (1982), the results of their study of a random sample of 50 schools found that some of the major features that characterize effective elementary schools are significantly less prevalent at the secondary level. Their findings revealed the following major organizational differences between the levels:

--There was far more agreement on instructional goals at the elementary level.

--In contrast to high schools, elementary schools have more of a shared sense of purpose with a greater emphasis on basic skills instruction.

--Elementary principals also have more opportunity to be instructional leaders by influencing classroom management (although this is still definitely in the teacher's zone of control).

--The structure of the secondary school and its broad range of goals is different from the elementary school.

--Departmentalization at the secondary level also limits the effectiveness of the principal.

--Secondary school teachers are subject matter specialists, elementary school teachers are primarily generalists.

--Secondary schools tend to be larger, so a great deal of teacher contact is delegated to others: assistant principals, department chairpersons, etc.

These findings illustrate that much of what is suggested as desirable by effective schools research is practiced more typically in elementary than secondary schools (p. 53).

Even though educational researchers have found that students often begin to mentally drop out of school at the elementary level, it is actually at the high school level where they physically drop out of school. High schools can

benefit by implementing the findings from the effective schools research and other research-based innovations.

B. RESTRUCTURE/REORGANIZE THE HIGH SCHOOL

In the article, "High School Reform: The Need for Engineering", (1983) Sizer concluded that current and future planning to improve the quality of education particularly at the high school level, must include the restructuring and reorganizing of schools. He clearly pointed out the need for restructuring the high school when he stated:

> Most of the central problems crippling U.S. high schools are obvious and well understood; it is the remedies that seem problematic. But there is no serious way to improve our high schools without revamping their structure. Politically painful though such a re-engineering may be, it is inescapable (p. 680).

A major inquiry into American secondary education, "A Study of High Schools", was conducted from 1981 to 1984. It was cosponsored by the National Association of Secondary School Principals (NASSP) and the National Association of Independent Schools (NAIS). Theodore Sizer conducted the first extensive study to be published in this major publication.

In his comprehensive, two-year study of high schools across the country, Sizer describes the condition of high schools in "Horaces Compromise: the Dilemma of the American High School" (1984). As a result of his study, he established the Coalition of Essential Schools which is a high school-university partnership devoted to strengthening the learning of students by reforming each school's priorities and simplifying its structure.

The Coalition is a practical effort at "rebuilding", at making new compromises in the goals and procedures for students and more sensible conditions of work for teachers. The Coalition currently includes approximately 60 high schools throughout the country working intensely with the project's central staff at Brown University. There is no "essential school model." Each school in the Coalition is autonomous and must develop a program and a policy strategy appropriate to its own setting and constituency. The Coalition is tied together by the following nine common, general principles:

> (1) AN INTELLECTUAL FOCUS--The school should focus on helping adolescents to learn to use their minds well. Schools should not attempt to be "comprehensive" if such a claim is made at the expense of the school's central intellectual purpose.
>
> (2) SIMPLE GOALS--The school's goals should be simple: That each student master a limited number of essential skills and areas of knowledge. While these skills and areas will, to varying degrees, reflect the traditional academic disciplines, the program's design should be shaped by the intellectual and imaginative powers and competencies that students need, rather than

necessarily by "subjects" as conventionally defined. The aphorism "Less is More" should dominate: curricular decisions should be guided by the aim of thorough student mastery and achievement rather than by an effort merely to "cover content."

(3) UNIVERSAL GOALS--The school's goals should apply to all students, while the means to these goals will vary as those students themselves vary. School practice should be tailor-made to meet the needs of every group or class of adolescents.

(4) PERSONALIZATION--Teaching and learning should be personalized to the maximum feasible extent. Efforts should be directed toward a goal that no teacher should have direct responsibility for more than eighty students.

(5) STUDENT-AS-WORKER--The governing practical metaphor of the school should be student-as-worker, rather than the more familiar metaphor of teacher-as-deliverer of instructional services. Accordingly, a prominent pedagogy will be coaching, to provoke students to learn how to learn, and thus to teach themselves.

(6) DIPLOMA BY EXHIBITION-- Students entering secondary school studies are those who can show competence in language and elementary mathematics. Students of traditional high school age studies will be provided intensive remedial work to assist them quickly to meet these standards. The diploma should be awarded upon a successful final demonstration of mastery for graduation--an "exhibition." This exhibition by the student of his or her grasp of the central skills and knowledge of the school's program may be jointly administered by the faculty and by higher authorities. As the diploma is awarded when earned, the school's program proceeds with no strict age grading and with no system of credits earned: by "time spent" in class. The emphasis is on the students' demonstration that they can do important things. (This is an example of an alternative to the current, controversial system of standardized testing that is utilized in the U.S. Many European countries utilize this technique, such as France with its "baccalaureate".)

(7) ATTITUDE--The tone of the school should explicitly and self-consciously stress values of unanxious expectation ("I won't threaten you but I expect much of you"), of trust (until abused), and of decency (the values of fairness, generosity and tolerance). Incentives appropriate to the school's particular students and teachers should be emphasized, and parents should be treated as essential collaborators.

(8) STAFF--The principal and teachers should perceive themselves as generalists first (teachers and scholars in general education) and specialists second (experts in but one particular discipline). Staff should expect multiple obligation (teacher-counselor-manager) and a sense of commitment to the entire school.

(9) BUDGET--Ultimate administrative and budget targets should include, in addition to total student loads per teacher of 80 or fewer pupils, substantial time for collective planning by teachers, competitive salaries for staff and an ultimate per pupil cost not to exceed that at traditional schools by more than ten percent. To accomplish this, administrative plans may have to show the phased reduction or elimination of some services now provided students in many traditional comprehensive secondary schools.

Goodlad, in "A Place Called School" (1984), recommended the restructuring of the entire school system. He proposed that students begin school at the age of four and complete school at the age of 16. By starting school at the age of four, the problem of early education would be solved, and by completing school at the age of 16, the problems associated with truancy would be minimized. (This proposal is similar to the educational system in France, where students complete their secondary education at the age of 16.)

Educational reformers are advocating School Based Management (SBM) as another aspect of restructuring the schools. Increased awareness of the importance of building level activities to the learning growth of students has magnified during the past decade. Research data reported by Sizer, Goodlad, Ron Edmonds, Project Director, Center for Urban Affairs, Harvard University, and others have shown that the rate of academic achievement of pupils is directly related to the quality of the building level staff and building level programs. SBM gives the authority to the building level personnel to plan, program, budget and develop the overall operation of the school. This practice encourages and promotes the "bottom-up approach" to management as opposed to the "top-down approach."

Restructuring and reorganizing high schools to meet the needs of all students can have a tremendous impact on student achievement and success particularly on at-risk, disadvantaged students. Additionally, focusing real decision-making power at the school building level can permit a PARTICIPATORY LEADERSHIP style to be developed where teachers, administrators, students, parents and other community members work together to solve the school's problems.

C. EDUCATIONAL REFORM

The educational reform movement of the past 10 to 15 years has also had a tremendous impact on disadvantaged students. The first wave of educational reform actually began in the mid 1970's. According to the National Center for Educational Statistics (NCES), between 1977 and 1982, approximately 20 states had put in place competency-based teacher certification requirements for high school graduation and 13 had approved statewide testing for remediation purposes. This first wave of reforms targeted the high school.

The release of the "Nation at Risk" report (1983), by the National Commission on Excellence in Education that was commissioned by former Secretary of Education, Terrell Bell,

began a proliferation of other national reports and studies about the condition of American education by a diverse mix of task forces, national commissions and academic groups.

The "Nation at Risk" report also sparked a second wave of educational reform which was an acceleration and expansion of the first wave. These reports also targeted the high school as the area in need of reform. State legislatures, governors and state boards of education moved to institute school improvement programs. According to a survey conducted by the U.S. Department of Education, "The Nation Responds" (1984), 35 states recently changed their student education evaluation/testing procedures and since 1980, 47 states have raised their graduation requirements.

D. ASSESSMENT OF THE IMPACT OF EDUCATIONAL REFORM ON DISADVANTAGED STUDENTS

As the post Nation at Risk report evaluation process begins, the effects of this intensive reform movement are beginning to be assessed, particularly its impact on the disadvantaged, at-risk student. According to a recent article "Studying the Effects of Reform" (1987), by Richard Colvin, free-lance writer from California and formerly with the Oakland Tribune, states such as South Carolina and Tennessee have undertaken efforts narrowly focused on the effect of specific programs. Broader assessment efforts are underway in California and at the Center for Policy Research in Education at Rutgers University, where researchers are studying education reform in six states (p. 7).

The Government Accounting Office (GAO) at the request of the House Subcommittee on Elementary, Secondary and Vocational Education is beginning a national study of the effects of the reform movement on disadvantaged students. Specifically, the objective of the study will be to determine whether the recent educational reforms initiated by the states have led to increased academic failure for at-risk students and the extent to which vocational education is available to potentially alleviate some of these negative effects.

Additional research is currently being conducted by the Metropolitan Opportunity Project at the University of Chicago. The research is intended to compare educational and economic mobility for young blacks, whites and Hispanics in large, metropolitan cities. Early indications from this research coupled with student achievement levels in recent National Assessment of Educational Progress (NAEP) studies, Scholastic Aptitude Test (SAT) scores, the dropout rate, etc. reveal that perhaps the recent educational reform movement has not significantly improved student achievement, and that perhaps it has had a negative effect on the at-risk student.

The important outcome of the past educational reform movement should be to influence and guide policy makers at all levels as they move into a third wave of educational reform. Many aspects of society are now stressing the importance of giving special emphasis to the needs of at-risk students.

Ernest Boyer, President of the Carnegie Foundation for the Advancement of Teaching, recently addressed this issue in a speech at a Presidential Candidates Forum at the University of North Carolina (1987). He concluded his remarks by stating:

> Finally, the students. Will the reform movement reach all children, not just the advantaged?
>
> From the very first, this nation has understood that education and democracy are connected. And at this late hour it's almost embarrassing to ask: "Which will be served?" Today, almost everyone agrees that excellence in education means excellence for all.
>
> But, frankly that's not the way the reform movement is working out. While "advantaged" schools are getting better, others remain deeply troubled institutions. And there is still an enormous gap between our rhetoric and results.

E. THE EFFECTIVE SCHOOL MOVEMENT

The effective school research which was conducted primarily at the elementary level has played an important role in the educational reform movement of the past 10 to 15 years. Of the effective school researchers, Ron Edmonds' research, "Search for Effective Schools: The Identification and Analysis of City Schools that are 'Instructionally' Effective for Poor Children" (1978), has probably emerged as the most popular and most widely discussed.

His research has had a tremendous impact on educating the disadvantaged student. One of the major purposes of his research was to prove that there are successful schools in poor, urban neighborhoods. He also wanted to disprove the findings of James S. Coleman (1966), Arthur R. Jensen (1969) and other social scientists whose research found that low achievement by poor children derived primarily from inherent disabilities characterizing the poor.

Edmonds was successful in both of his research efforts. His research proved that students can and do achieve in spite of low socioeconomic background, and it proved that schools do make a difference in the success of these students. As a result of his research findings, the excuse of low socioeconomic status can no longer be utilized as an excuse for not properly educating poor, disadvantaged students.

He was also able to identify five dominant characteristics that were prevalent in the successful elementary schools that he studied: (1) strong administrative leadership, (2) frequent monitoring of student programs, (3) positive school climate, (4) acquisition of basic skills taking precedence over all other school activities, and (5) high expectations. However, it is important to point out that these characteristics are descriptive, not prescriptive, and they primarily describe building management. Edmonds' research did not progress to the prescriptive level where he developed specific research-based programs that would bring about school improvement. His untimely death, in 1983, prevented the continuation of his research in this area.

Therefore, a variety of different types of school improvement programs have been developed and implemented in many school districts throughout the country. Some of these programs have proven to be successful and some have not--high schools are experiencing less success. It is important to stress that in order for school improvement programs to be successful, they must emphasize the implementation of strong instructional programs that have been proven to be successful for all students, in addition to duplicating the five, important characteristics which primarily address building management and atmosphere.

Instruction is prescriptive and instructional programs directly impact student achievement along with the delivery of those programs by teachers. In "Effective Schools for the Urban Poor" (1979), Edmonds stressed the importance of concentrating on instruction as the basis for effective/successful schools and as the basis for future research inquiry when he stated:

> What effective schools share is a climate in which it is incumbent on all personnel to be "instructionally" effective for all pupils. This is not, of course, a very profound insight, but it does define the proper lines of research inquiry. What ought to be focused on are questions such as: What is the origin of that climate of instructional responsibility? (p. 22).

F. INSTRUCTIONALLY EFFECTIVE SCHOOLS AT THE HIGH SCHOOL LEVEL

The high school has been and remains the target of the educational reform movement. As pointed out earlier by Goodlad and others, elementary schools are more "instructionally" oriented than high schools and as pointed out by Sizer, the basic structure of high schools is more complex than elementary schools; therefore, it will be more difficult to bring about change, restructure building management and school organization, and to focus attention on effective school research and other research-based instructional programs, etc.

Firestone and Herriott drew the following conclusions about the differences between elementary and secondary schools that contribute to the difficulty of restructuring and changing high schools:

> Differences between levels are unlikely to reflect the characteristics of principals as individuals. Instead, they seem to reflect basic aspects of the structure of the secondary school. In effect, a broad range of goals is built into the structure of a school as soon as it has separate units for teaching English, mathematics, social studies, vocational courses and other topics. Thus, secondary teachers may agree that basic skills instruction is important, but many of them can argue reasonably that 'it's not my job'. Even the most charismatic principals may find it difficult to create consensus on instructional goals with such built-in diversity (p. 52, 1982).

As mentioned earlier, 47 states have changed their graduation requirements for high school students. This usually consisted of adding more courses to the curriculum and these additional courses are usually more academic. However, it has been proven that just adding more rigid, academic courses to the curriculum will not necessarily improve students' achievement. Furthermore, in many instances if additional services have not been provided for the at-risk student, this practice has perhaps contributed to the student dropout rate.

Secretary of Education, William Bennett recently addressed this practice when he introduced the fictitious high school, James Madison. His ideal high school would have a rigorous, academic curriculum. However, he did not present a comprehensive program of action that outlines the process for implementing this curriculum that will show how this curriculum would be successful in meeting the needs of all students.

Changing the curriculum and requiring higher standards has been utilized throughout the American educational history as a means of school reform. It is viewed by many as an inexpensive strategy that is utilized in an effort to bring about higher student achievement. In the past, just requiring a more rigid curriculum without improving, reorganizing and/or restructuring the school program has not necessarily caused student achievement to improve. Sizer addresses this issue in his nine principles for restructuring high schools (see principle #2, Simple Goals, p. 5).

Perhaps one of the major reasons that many school improvement programs have not succeeded, particularly at the high school level, is because an emphasis has not been placed on implementing comprehensive programs that target and emphasize instructional programs and other support programs that have been proven to work for all students.

The following section will present some examples of instructional programs that have been proven to work for all students.

G. RESEARCH-BASED INSTRUCTIONAL PROGRAMS

Edmonds stressed instruction as the proper lines for future research inquiry. During the past 15 to 20 years, educational researchers have been making tremendous strides in developing instructional, learning, teaching programs that work for all students. The continuation of instructional, teaching research for all levels of the educational system should also be encouraged and supported and strategies should be developed to facilitate the transfer of programs to educators, particularly at the high school level.

In a recent article, "How Poor Kids Get 'Dumbed Down'", (1988), by William Raspberry, columnist for the Washington Post, Raspberry addressed the issue of educating the at-risk student, the need for continued educational research in the area, and the need for the development of strategies to transfer that research to the classroom teacher and student when he stated:

> Most teachers are poorly trained with a very narrow repertoire of teaching skills. We have got to improve the skills of teachers so that they understand and know how to surmount the barriers to learning that these kids face. The knowledge to accomplish that is accumulating, but it is rarely transmitted from research scholars to classroom teachers.

The following are descriptions of several major instructional programs that are research based and that have been proven to make a difference in students' achievement and success levels.

1. Brain Learning Research and Theory

Educational researchers have made tremendous progress in the area of brain learning theory. Leslie Hart, educational consultant, has developed a learning theory, the Proster Theory, based on this brain research. Hart's theory is being implemented in an elementary school in New Jersey. The project is in its fifth year of implementation and the students are making tremendous progress. The theory is based on three simple principles. The achievement level of all students will improve if they are in a learning environment that focuses on: (1) freedom from threat, (2) communications emphasis and (3) reality emphasis. Hart states the following about the theory:

> Brain-compatible instruction, based on Proster Theory, shows what is wrong and how to fix it:
>
> ORGANIZATION. The school can move toward more flexible, cooperative and collaborative arrangements that permit better instruction and enormously better learning for all. Teachers are "set free" and empowered to contribute more.
>
> CLIMATE. The classroom typically put students under threat, which severely "downshifts" the parts of the brain where learning takes place. In a brain-compatible setting, threat is sharply reduced, as are confrontations. Student behavior greatly improves; teachers can transfer much time from "control" to instruction, and work in a more relaxed, productive way. The school becomes a whole instead of a collection of diverse classrooms.
>
> PEDAGOGY. Guided by new insights into what learning is and how to produce it, staff can reexamine old, conventional teaching techniques, practices, and materials, moving to new brain-compatible principles. Traditional methods that may actually impede learning can be replaced with ways that help--producing startling gains. Teachers "grow" as their talents, experience, enthusiasm, and abilities are fully utilized.
>
> QUALITY CONTROL. In the conventional school, there is often no reliable or automatic program for preventing failure and monitoring students'

> individual attainment in real time. The brain-compatible school provides built-in means to continually assure excellence.

In spite of the fact that a tremendous amount of research is currently available in the area of how the brain actually functions in the learning process, which has the capacity to revolutionize all students' success and achievement, few educators are actively utilizing this knowledge to improve the educational/learning process. This is primarily true because there has been no organized program to disseminate this research to educators.

A recent article in the Association for Supervision and Curriculum Development (ASCD, 1987), announced that several researchers will be traveling across the country and in other countries in search of brain-based learning and teaching programs. However, future efforts to disseminate this knowledge to educators was not mentioned in the article.

The development of the $500 million Brain-Mind Institute by the Johns Hopkins University in Baltimore, Maryland will also contribute to the expansion of research in this area. Dissemination of its findings will be of importance to educators and students.

2. Cooperative Learning

Cooperative learning refers to a set of instructional methods in which students work in small, mixed-ability learning groups. The students in each group are responsible not only for learning the material being taught in class, but also for helping their group mates learn. In an article, "Cooperative Revolution Catches Fire" (1988), Robert Slavin, researcher at the Johns Hopkins Research Center for Social Organization of Schools and the Center for Elementary and Middle Education, discusses this innovative strategy and how it has expanded from the classroom to the entire school. He states:

> We've been working for the past 15 years at the Johns Hopkins University's Center on Cooperative Learning methods in the classroom. In more recent years, we've begun to move beyond cooperation in the classroom to cooperation at all levels of the educational enterprise. This article describes cooperative learning and the extension of this idea to what we call the cooperative school.

Description of The Strategy:

> --The technique does not involve technology, money, or massive changes in school organization. It involves people, students, teachers, and administrators working cooperatively to enhance the learning of all.
>
> --Cooperation among regular, special, and compensatory education teachers to meet the needs of at-risk students is increasing.

--Student Team Learning is a set of instructional techniques that have been evaluated all over the United States. The basic idea behind the Student Team Learning techniques is that when students learn in small, carefully structured heterogenous, learning teams and are rewarded for working toward a common goal, they help one another learn, gain in self-esteem and feelings of individual responsibility for their learning and increase in respect and liking for their classmates, including their classmates of other races.

--Team Accelerated Instruction (TAI) in mathematics has been developed for grades three through six.

--Cooperative Integrated Reading and Composition (CIRC) has been developed in reading, writing, and language arts for grades three through five.

--Peer coaching, where teachers help one another to learn and use new instructional methods, is another effective form of cooperation. (Peer coaching is extremely effective for the successful implementation of innovative, instructional/educational programs).

--Still another is increasing involvement of teachers in working with administrators to set a direction for the school. (This is the beginning of a participatory leadership style.)

--What ties together these disparate forms of cooperation is that in each case, collaboration among people working toward a common goal is expected to produce more than the individuals working alone; the whole of their combined efforts is greater than that of its parts. (This is the expansion of a participatory leadership style.)

Outcomes:

--Of 40 studies (each study being a minimum of four weeks' duration) which compared cooperative methods of this type to traditional control methods, 35 found significantly greater achievement for the cooperatively taught classes and five found no significant differences. In contrast, only four of 20 studies that evaluated forms of cooperative learning without group goals based on group members' learning found positive achievement effects.

--The successful studies of cooperative learning have taken place in urban, rural, and suburban schools, in the U.S., Canada, Israel, West Germany, and Nigeria, at grade levels from two to 12, and in subjects as diverse as mathematics, language arts, writing, reading, social studies and science.

--In general, achievement effects have been equal for high, average and low achievers, for boys and girls, and for students of various ethnic backgrounds.

--Positive effects of cooperative learning have also been found on such outcomes as race relations,

acceptance of mainstreamed academically handicapped classmates and student self-esteem.

3. The IBM Writing To Read Program

The writing program that has been developed by Deloris Saunders, Professor at the George Washington University, to accompany the IBM Writing to Read Program, is being implemented by her in the Washington, D.C. Public preschool and elementary schools. The writing program utilizes a phonetic approach to teaching children to write. As a result of their writing, they also learn to read because through phonetic mastery which they ultimately achieve, they interpret the code. All children who gain phonetic mastery read and write but not all children who learn to read from other approaches can write. Saunder's research is finding that students are making tremendous progress in the area of reading and writing.

The researchers have learned that disadvantaged students usually enter school with approximately 2,500 words and advantaged students usually enter school with approximately 5,000 words. However, they have found that very often the disadvantaged students catch up with the advantaged students and often move beyond them. They have not been able to determine why this occurs.

Other, innovative, research-based instructional/learning/teaching programs include Mastery Teaching, a Clinical Supervision program by Madelaine Hunter, Professor and Researcher at UCLA; Mastery Learning by Benjamin Bloom, Distinguished Service Professor Emeritus, The University of Chicago; and Student Learning Styles by Rita Dunn, Professor, St. Johns University in New York.

Implementation of successful programs like the above-mentioned have been proven to improve learning for <u>all</u> students. These programs may also be effective in strengthening existing programs that are intended to improve education for the disadvantaged student (Head Start, Chapter 1, etc.).

H. CONCLUSION

As we move into the 21st Century, and as our society and its needs continue to rapidly change, more <u>collaborative</u> projects between universities and schools such as Sizer's Coalition of Esssential Schools, Saunder's Writing Program, etc. have the potential to improve schools and consequently impact students' achievement. The effective school research of Ron Edmonds and others has great potential for improving schools particularly at the high school level. Examining and adopting innovative policies and practices of other major nations also has potential for improving our educational system.

What happens to students at the elementary level will impact their achievement at the secondary level, and what happens to them at the secondary level will effect their success at the university level. Focusing attention on the need for educators to begin to collaborate at all levels of

the educational system, and developing a "holistic" approach to educating all students can serve to improve the American educational system.

III. THE TEACHER

Teachers are the one group of educators who directly impact student achievement and success in school. Their ability and the extent of their knowledge base determine how successfully they impact student achievement. As efforts to improve student achievement and success levels continue, society is realizing the importance and necessity of improving the development of practicing teachers as well as improving the training and preparation of new teachers. As the country struggles to compete with other nations, these issues have become high priorities at all levels of government. However, there are many factors that threaten the future progress of this profession.

A. TEACHER SHORTAGE

In the past, females have traditionally dominated the teaching profession. According to surveys by the National Education Association (1966-1986) and The National Center for Education Statistics (1987), women have consistently comprised approximately 65 to 70 percent of the profession, primarily because careers in other professions were not available to them. However, today, due in part to Federal policy and to the women's movement, other professions are more accessible to women. Consequently, they are choosing careers other than teaching. Additionally, minorities, in general, are also choosing careers other than teaching at a time when the minority student population is rapidly growing.

In an article, "America's Future Teaching Force: Predictions and Recommendations" (1987), Richard Kemper, Chairman of the Department of Instruction and Teacher Education at the University of South Carolina, and John Mangieri, Dean of the School of Education, Texas Christian University, discussed the results of two national surveys which they conducted. The surveys were conducted in 1983 and 1987. They were national surveys of high school seniors, and they studied students' responses to questions pertaining to their "interest" in teaching as a profession.

The first study, 1983, was comprised of more than 4,000 high school seniors, and it focused primarily on the extent of student interest in teaching. The second study, 1987, had the same basic goal as the first study; however, it focused on the "quality" of seniors who were interested in teaching as a profession. This survey studied the responses of the top 50 percent of college-track seniors in schools in urban, suburban and rural districts.

Results from the first survey include:

--Only a small proportion (9 percent) of the participants were very interested in teaching as a profession.

--Among those who said they were very interested in teaching, the percentage of "women" was more than twice that of men.

The population in the second survey consisted of 589 seniors who ranked in the top 50 percent among their college-bound classmates. Of the 589 participants, 261 (44 percent) were male, 328 (56 percent) were female, 129 (22 percent) were members of minority groups, and 460 (78 percent) were white.

The results from the second survey include:

--Only 8 percent of the college-bound students were very interested in teaching as a career, 25 percent were somewhat interested, 13 percent had no opinion, and 53 percent were not interested.

--When the variable of gender was taken into account, 71 of the male respondents (27 percent) and 125 of the female respondents (38 percent) were very interested or somewhat interested in teaching as a career.

Implications from the Studies Include:

--The teaching profession will continue to experience a shortage of recruits particularly from among high achieving secondary students.

--Unless efforts are made to change young people's perceptions of teachers' roles, kindergarten and early elementary classrooms in the U.S. will continue to be staffed predominantly by women, and men will continue to make up a majority of the teaching force at the junior and senior high school levels.

--Efforts should be made to attend to the fact that many people change careers several times during their working years, and teaching should probably be promoted as one of those careers.

--Some 47 percent of the respondents in this study who said that they were very interested or somewhat interested in teaching as a career also said that they expected to teach less than 10 years, while only 19 percent said that they expected to teach more than 20 years. This finding suggests that teaching might be profitably promoted in some way other than as a lifelong career.

--(Expanding upon this idea, perhaps the profession could consider recruiting top students by utilizing a system similar to the Peace Corps. Top-ranking graduates could be attracted to the profession on a two- to five-year contractual basis, and after having taught for this amount of time, they would be free to pursue other careers. Pay and other incentives could be attractive for these short teaching periods. Additionally, new ideas and new energy would be constantly available in the profession.)

--A strong effort must be made to encourage prospective teachers to prepare themselves to teach

> students with special needs. Our findings suggest an impending shortage of teachers for all types of special students, those requiring remedial work, low-ability students, the handicapped, and gifted and talented students (p. 394).

A recent survey (spring, 1987) conducted by the National Education Association (NEA), found that the supply of qualified teachers is inadequate. The survey was based on 128 of the nation's 190 largest school districts.

Data from the survey found the following:

> --Forty-one percent of the respondents say they may use "emergency" certification to hire people from other fields who have not completed professional teacher preparation programs.
>
> --Forty percent say they may increase the use of teacher aides or interns.
>
> --Almost half (48 percent) of the districts responding say they may hire more temporary or substitute teachers.

Additionally, it was found that the most acute shortage is in bilingual education, where 80 percent of the positions are unfilled. Nearly half of the positions in special education and a third in science and mathematics are still open. The area of minority teachers will also experience a major shortage.

8. TEACHER TESTING POLICIES

In the area of teacher testing, minorities appear to be more adversely affected by current policies and practices. The results of a 1986 survey conducted by the National Education Association showed that states in southeastern and western regions of the country required passing a competency test for initial certification more than did states in other regions. More than 34 percent of the teachers in the southeast were tested before they were allowed to enter the teaching profession, compared to 11.7 percent in the west, 9.0 percent in the northeast, and only 7.8 percent in the middle region. Since minorities represent a higher proportion of the population in these regions than in the rest of the country, they are more likely than whites, on a national basis, to have been subjected to certification testing.

The available data clearly indicate that in states reporting results of teacher testing, the passing rates for minorities were well below those of whites. In a study by Peter A. Garcia, Professor, Bilingual Education Project, The School of Administration and Supervision, Pan American University, "A Study on Teacher Competency Testing..." (1985), Garcia found that of the 16 states reporting results of competency tests by race and ethnicity:

> --Five states reported lower test scores for ethnic minorities on tests of professional education (pedagogy).

--Seven states reported lower test scores for minorities in the area of academics.

--Seven states reported lower test scores on certification tests.

He also found the following:

--Available data clearly indicate that a disproportionately high number of black, Hispanic, and Asian candidates are being screened from the teaching profession. This exclusionary trend is evident regardless of the state and regardless of the type of examination--admission or exit; standardized or customized; basic skill, subject matter, or professional knowledge (p. 61).

--Tests such as the National Teachers' Examination (NTE) were never intended to predict teaching performance, and there are very low correlations between measures of teacher effectiveness and test scores (p. 12).

--The predictive validity of pencil-and-paper tests has been questioned by numerous studies (p. 52).

C. REFORM OF THE TEACHING PROFESSION

Teachers and students have been directly impacted by the recent waves of education reform; yet neither group has been directly involved in the process. Of the recent national reports that have been released on restructuring the teaching profession, the Holmes Group report, "Tomorrow's Teachers" and the Carnegie Forum on Education and the Economy's report, "A Nation Prepared: Teachers for the 21st Century", are probably the most discussed by educational leaders and major educational associations/organizations and they are the most controversial.

1. Controversies and Reactions by Major Educational Organizations Include:

--Requiring vigorous preparation for teacher candidates; both Carnegie and Holmes recommend abolishing the undergraduate education degree, and requiring a master's degree for beginning teachers.

Adding an additional year of study as a requirement for entering the profession will cause disproportionate economic hardship for minority students who are already experiencing difficulties financing their education. For many of these students, education may cease to be a viable career.

--The Holmes report points out the importance of minority children having access to minority teachers. However, the report recommends additional testing for teachers at each level of preparation. Low performance of minorities on teacher tests and controversies about what tests actually measure are among the reasons that this recommendation has been questioned by educators.

Requirements for additional and more rigorous tests should be accompanied by strategies and resources to increase the pass rates of minorities.

--A Nation Prepared calls for establishing a National Board for Professional Teaching Standards. This National Board would call for higher standards for teachers.

Requiring higher standards could cause additional problems for minority teachers who are already performing poorly on existing teacher tests. Additionally, the establishment of a national teacher standards board is a long-term project that is projected for a minimum of five years. The need to improve the teaching profession is far more immediate. The results of national teacher testing practices have found that teachers need immediate assistance in improving their skills. Available funds should be invested in upgrading and developing teacher skills.

--Teacher testing and the establishment of strict standards should be implemented after teachers' skills have been upgraded.

Raising standards and increasing teacher testing has no direct impact on improving their skills. These practices serve to highlight and accentuate the existing problems.

2. Teacher Development Initiatives

Both Boyer and Goodlad in their extensive studies of schools have recommended the establishment of Teacher Institutes in every region of the country which would serve to develop and strengthen the skills of teachers. Boyer, in a recent speech at a presidential candidates' forum at the University of North Carolina (1987), made the following statement:

> What I now propose is a 1988 version of Eisenhower's NDEA, a new legislative package--that would, among other things, establish Teacher Institutes in every region of the country and provide fellowships to thousands of teachers from all fifty states, allowing them to spend time in libraries, in laboratories, and with other teachers--the simple things that college professors just take for granted.

Expanding Boyer's proposal to focus on the establishment of Summer Teacher Institutes would provide opportunities for teachers and education researchers to collaborate. It would also provide an excellent opportunity for researchers and teachers to work with disadvantaged, at-risk students in controlled settings. The opportunity would provide additional assistance to these students, would provide them additional time and exposure to the learning process and would be beneficial to the profession.

The American Association of Colleges for Teacher Education (AACTE) recently released their report "Minority Teacher

Recruitment and Retention: A Call for Action" (1987). That report proposes ten specific programs to address this issue. Three of these proposals are geared to the Federal level, one proposal is geared to the state level, one is geared to the state and local levels, one is geared to the local and nongovernmental levels, and four are geared to all levels. The ten programs are: National Scholarship Program, State Scholarship Program, Targeted High School Work-Study Program, Targeted College Work-Study Program, Two-year/Four-year Articulation Program, Assistantships and Grants Program, Support Program for Reentry and Career Change, Targeted Teacher Induction Program, and Assessment Demonstration Grants Program.

The American Council on Education (ACE) and the Education Commission of States (ECS) are jointly sponsoring the formation of a 34-member, blue-ribbon panel that will recommend ways that government, business and education can improve opportunities for members of minority groups. Former Presidents Jimmy Carter and Gerald Ford will serve as Honorary Chairmen of the panel. Other members of the Commission include: former Education Secretary Terrell Bell, Arkansas Governor William Clinton, NAACP Executive Director Benjamin Hooks, former Representative Barbara Jordon, New Jersey Governor Thomas Kean, Coretta Scott King, former Senator Edmund Muskee and former Secretary of State William Rogers.

The blue-ribbon panel is one of four initiatives that have been announced by ACE to address the issue of minority participation. The other three initiatives are:

(1) The development of a handbook explaining successful programs to increase minority enrollment.

(2) A special issue of ACE's publication, "Educational Record."

(3) ACE's "Memorandum to the 41st President.

State initiatives have included the implementation of Master Teacher Programs, Career Ladder Programs, Merit Pay Programs, Mentor Teacher Programs, etc. However, the implementation of incentive programs without the establishment of teacher development programs in conjunction with them have not necessarily improved the quality of instruction and teaching in the educational system. In some instances these programs may have had an adverse affect on teachers, lowering their morale instead of stimulating their creative talents. On the other hand, programs of this nature that have actively and meaningfully involved teachers in their development, participatory leadership, have proven to be more successful.

Additionally, Maryland, California and other states are actively involved in analyzing past practices and policies, and they are establishing and organizing new education commissions to plan new statewide initiatives in the public schools as well as in higher education. Policymakers at the Youth Policy Institute Forum (1987), held in Washington, D.C., advocated the necessity for state and Federal policymakers to collaborate as this new planning process begins.

On the Federal level, during the Second Session of the 100th Congress, several Members of Congress are developing legislation to address this issue. Major educational leaders, organizations and associations are also calling for legislation to address this issue.

D. CONCLUSION

As the country moves to restructure and improve the teaching profession, it is important to invest available resources, both human and monetary, in teacher development as opposed to just emphasizing teacher testing. The current and past practices of investing time and other resources in testing teachers and raising standards before providing appropriate programs to improve their skills has not always produced better, more effective teachers. These policies and practices are, in many instances, having a negative impact on our already diminishing supply of teachers, especially minority teachers.

The initiatives discussed in this report will perhaps begin to improve the quality of the teaching profession and consequently improve students' success and achievement in school.

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